Fall 2020

CS 101-013: Introduction to Programming for Engineers

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CS 101
Introduction to Programming for Engineers

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Textbook: CS 101: Computer Programming and Problem Solving
This is an on-line book. Subscription instructions:

1. Sign in or create an account at **learn.zybooks.com**
2. Enter zyBook code: NJITCS101RutowskiFall2020
3. Subscribe

Grading: Programming projects and other assignments will be posted on canvas Midterm and final exams will be replaced by projects and assignments.

Final grade will be computed as:

Programs	30%
Assignments	30%
Final Project	30%
Attendance/Participation	10%

Topics:

The course will introduce students to the application of computing in engineering. The majority of the course will teach the basic concepts of imperative programming using the MATLAB programming language. We will also have an introduction to Python and C++. The main topics will be:

1. Input/output
2. Translating equations into MATLAB
    - arithmetic operators
    - calling functions
    - plotting
3. Sequence of control flow
4. Selection statements
    - relational operators
    - logical operators
5. Iteration statements
6. Writing functions
    - parameter passing
    - local variables
7. Introduction to Python
8. Introduction to C++